Nature Of Mater Test Review

Name:

Practice – Properties & Changes of Matter

Identify each of the following as a physical or chemical property.

_____ Water boils at 100 degrees Celsius

_____ Diamonds have a hardness of 10 & can cut glass.

_____ Water can be separated into hydrogen & oxygen by electrolysis.

_____ Sugar can be dissolved in water.

_____ Vinegar bubbles when mixed with baking soda.

_____ Yeast uses sugar to form carbon dioxide & ethanol.

_____ Wood can be burned.

_____ Aluminum has a low density.

_____ Aluminum can be folded &/or bent.

_____ Oxygen is a gas at room temperature.

_____ Chlorine gas is yellow.

Identify each of the following as a physical or chemical change.

_____ Dry ice sublimes at room temperature creating fog.

_____ Gasoline burns in the presence of oxygen.

_____ Salt dissolves in water.

_____ An old bike rusts when left outside too long.

_____ Breaking a bone in the human body.

_____ Mitochondria in cells generate energy from sugars.

_____ Absorption of water by the roots of a plant.

_____ Splitting a block of wood.

_____ Baking a cake.

Vocabulary

Match the terms in Column II with the definitions in Column I. Write the letter in the blank.

Match the terms in Column II with the definitions in Column I. Write the letter in the blank.

_____ 1 – heterogeneous mixture containing a liquid in which visible particles never settle.

_____ 2 – contains 2 or more gaseous, liquid or solid substances blended evenly throughout the mixture.

_____ 3 – substance in which all atoms are alike

_____ 4 – any material made of 2 or more substances that can be physically separated

_____ 5 – the scattering/ blocking of light by colloidal particles

_____ 6 – heterogeneous mixture with large particles that settle.

_____ 7 – a mixture in which different materials can be easily distinguished

_____ 8 – homogeneous mixture of particles so small they cannot be seen & will never settle out

_____ 9 – substance in which 2 or more elements are combined in a fixed proportion.

A – colloid

B – compound

C – element

D –heterogeneous mixture

E – homogeneous mixture

F – mixture

G – solution

H – suspension

I – Tyndall effect

Elements, Compounds & Mixtures

Identify each of the following as an element, compound or mixture. Use the letters E -element, C – compound, Hm for homogeneous mixture & Ht form heterogeneous mixture.

____ 1. flat soda pop

____ 2. cherry vanilla ice cream

____ 3. aluminum foil

____ 4. soil

____ 5. sugar

____ 6. black coffee

____ 7. sugar water

____ 8. beach sand

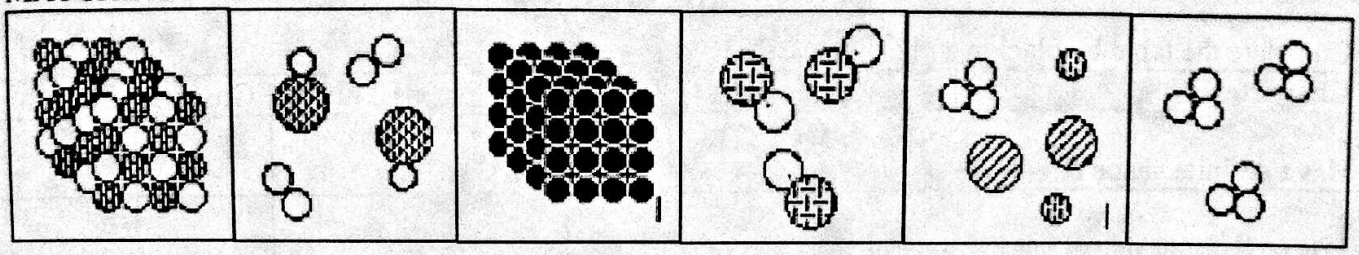
____ 9. iron

____ 10. hot chocolate

Fill in the chart below.

Phase Change	From	To	Heat (added or removed)
Boiling	Liquid	Gas	Added
Condensation			
Evaporation			
Freezing			
Melting			
Deposition			
Sublimation			
Vaporization			

MATCHING:



a b c d e f

_____ 1. Pure element

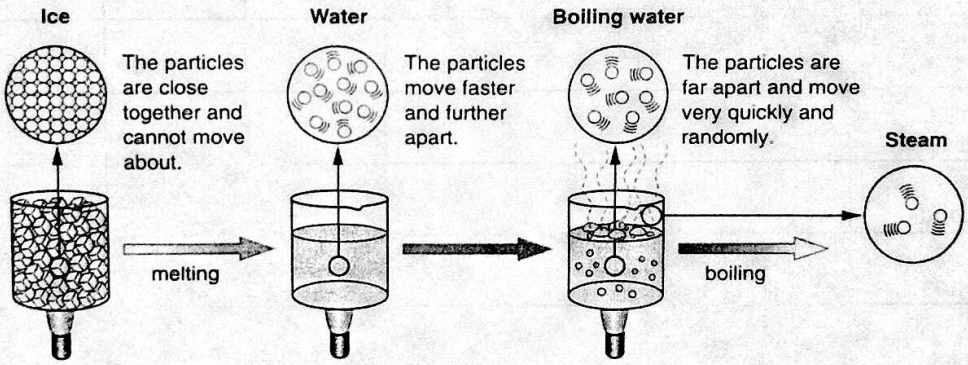
_____ 2. Mixture of 2 elements

_____ 3. Pure compound

_____ 4. Pure molecule

_____ 5. Mixture of a compound and a molecule

_____ 6. Mixture of a molecule and two elements



▲ Changes of state in matter.

Draw the heating curve associated with the above picture. Include: Labels for Heating and Cooling (ex/melting and freezing), show where energy/temperature increase and decreases.

States of Matter:

Complete the table by placing a check mark in the correct column.

Characteristics	Solids	Liquids	Gases	Plasma
Has a definite shape & volume				
Has no definite shape, but has a definite volume				
Has no definite shape & no definite volume				
Will take the shape of its container				
Particles will expand to fill all available space				
Particles are packed tightly & "locked" in place				
Particles are close together, but freely move around				
Exists in stars & fire				
Water at $0^{o}C$				
Water at $100^{o}C$				
Water at $50^{o}C$				
Has no Bonds				
Has Strong Bonds				
Has weak Bonds				

What is the difference between Boiling and Evaporation? (hint: where does each take place)

When a person is exercising they sweat. WHY?
(Make sure to discuss what is happening with the following: Temperature, Kinetic Energy, and Evaporation)